

Claim 2 (twice amended) A system for providing a mix minus signal from a delayed feedback signal and a relatively undelayed talent signal including in combination:

a cancellation circuit responsive to said talent signal to delay said talent signal in a variable delay and to gain adjust said talent signal in delayed or undelayed form in a variable gain circuit thereby providing a cancellation signal, with the amount of at least one of said delay or gain responsive to said mix minus signal or said feedback signal or both;

[a combining circuit responsive to] said feedback signal [without further substantial variable delay] and said cancellation signal being applied to a combining circuit to provide said mix minus signal with said feedback signal being applied without the use of a variable delay circuit.

Claim 3 (twice amended) A system for providing a mix minus signal from a delayed feedback signal and a [relatively undelayed] talent signal including in combination:

a cancellation circuit responsive to said talent signal to delay said talent signal in a variable delay and to gain adjust said talent signal in delayed or undelayed form in a variable gain circuit thereby providing a cancellation signal, with the amount of said delay and gain automatically responsive to at least one of said mix minus signal and said feedback signal and;

[a combining circuit responsive to] said feedback signal [without further substantial variable delay] and said cancellation signal being applied to a combining circuit to provide said mix minus signal with said feedback signal being applied without the use of a variable delay circuit.

Claim 4 A system as claimed in claim 1, 2 or 3 wherein said amount of said delay is responsive to said feedback signal and the amount of said gain is responsive to said mix minus signal.

Claim 5 (twice amended) [A system for providing a mix minus signal from a feedback signal and a talent signal including in combination:

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a cancellation circuit responsive to said talent signal to delay said talent signal in a variable delay and to gain adjust said talent signal in delayed or undelayed form in a variable gain circuit thereby providing a cancellation signal, with the amount of said delay or gain responsive to operator adjustment;

a combining circuit responsive to said feedback signal and said cancellation signal to provide said mix minus signal;]

A system as claimed in claim 1, 2 or 3 wherein said amount of said delay is responsive to said mix minus signal and the amount of said gain is responsive to said feedback signal.

Claim 6 A system as claimed in claim 1, 2 or 3 wherein said amount of said delay and said amount of said gain is responsive to said feedback signal.

Claim 7 (twice amended) [A system for providing a mix minus signal from a feedback signal and a talent signal including in combination:

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a cancellation circuit responsive to said talent signal to delay said talent signal in a variable delay and to gain adjust said talent signal in delayed or undelayed form in a variable gain circuit thereby providing a cancellation signal, with the amount of said delay or gain responsive to operator adjustment;

a combining circuit responsive to said feedback signal and said cancellation signal to provide said mix minus signal;]

A system as claimed in claim 1, 2 or 3 wherein said amount of said delay and said amount of said gain is responsive to said mix minus signal.

Claim 8 A system as claimed in claim 1, 2 or 3 wherein at least one of said amount of said delay and said amount of said gain is responsive to a correlation of said mix minus signal and said talent signal wherein said talent signal is in delayed form.

Claim 9 A system as claimed in claim 1, 2 or 3 wherein at least one of said amount of said delay and said amount of said gain is responsive to a correlation of said feedback signal and said talent signal wherein said talent signal is in delayed form.

Claim 10 A system as claimed in claim 1, 2 or 3 wherein at least one of said amount of said delay and said amount of said gain is responsive to a correlation of said mix minus signal and said talent signal wherein said talent signal is in undelayed form.

Claim 11 A system as claimed in claim 1, 2 or 3 wherein at least one of said amount of said delay and said amount of said gain is responsive to a correlation of said feedback signal and said talent signal wherein said talent signal is in undelayed form.

Claim 12 (amended) A system as claimed in claim 1, 2 or 3 wherein at least one of said amount of said delay and said amount of said gain is responsive to a correlation of said mix minus signal and said talent signal wherein said talent signal has been gain adjusted in said variable gain [adjust] circuit.

Claim 13 (amended) A system as claimed in claim 1, 2 or 3 wherein at least one of said amount of said delay and said amount of said gain is responsive to a correlation of said feedback signal and said talent signal wherein said talent signal has been gain adjusted in said variable gain

[adjust] circuit.

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Claim 14 (amended) A system as claimed in claim 1, 2 or 3 wherein at least one of said amount of said delay and said amount of said gain is responsive to a correlation of said mix minus signal and said talent signal wherein said talent signal has been gain adjusted in said variable gain [adjust] circuit.

Claim 15 (amended) A system as claimed in claim 1, 2 or 3 wherein at least one of said amount of said delay and said amount of said gain is responsive to a correlation of said feedback signal and said talent signal wherein said talent signal has been gain adjusted in said variable gain [adjust] circuit.

Claim 16 A system as claimed in claim 1, 2 or 3 wherein at least one of said amount of said delay and said amount of said gain is responsive to a correlation of said feedback signal and said cancellation signal.

Claim 17 A system as claimed in claim 1, 2 or 3 wherein at least one of said amount of said delay and said amount of said gain is responsive to a correlation of said mix minus signal and said cancellation signal.

Claim 18 A system as claimed in claim 1, 2 or 3 wherein said delay is automatically adjustable in response to changes in relative delay of said talent signal and the talent signal component of said feedback signal.

Claim 19 (twice amended) [A system for providing a mix minus signal from a feedback signal and a talent signal including in combination:

a cancellation circuit responsive to said talent signal to delay said talent signal in a variable delay and to gain adjust said talent signal in delayed or undelayed form in a variable gain circuit thereby providing a cancellation signal, with the amount of said delay or gain responsive to operator adjustment;

a combining circuit responsive to said feedback signal and said cancellation signal to provide said mix minus signal;]

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A system as claimed in claim 1, 2 or 3 wherein said delay is automatically adjusted in response to comparison of said feedback signal and said talent signal in undelayed form, and said gain is automatically adjusted in response to said mix minus signal and said talent signal in delayed form.

Claim 20 (twice amended) A method for providing a mix minus signal from a talent signal and a feedback signal having a variable amount of delay arising from its passage through a broadcast transmission including the steps of:

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- a) delaying said talent signal by a varying delay amount in [continuing] response to said variable amount of delay;
 - b) providing a cancellation signal of a known level in response to said delayed talent signal;
 - c) changing said varying delay amount of said delay in step a) from time to time;
 - d) combining said feedback signal and said cancellation signal to provide said mix minus signal wherein said feedback signal is combined without additional variable delay beyond said variable amount.

Claim 21 (twice amended) A method of providing a mix minus signal from a feedback signal and a talent signal which have a variable relative timing arising from a broadcast transmission, including the steps of:

- a) delaying said talent signal by a varying delay amount in ^{response}~~responsive~~ [continuing response] to said varying relative timing;
- b) adjusting the level of said talent signal in delayed or undelayed form and providing a cancellation signal in response to the delayed form thereof;
- c) in said delaying step a) or said adjusting step b) or both, changing the amount of at least one of said varying delay amount or said level in responsive to said mix minus signal or said feedback signal or both;
- d) providing said mix minus signal in response to said feedback signal and said cancellation signal wherein said feedback signal receives no variable delay beyond that as part of said broadcast transmission.

Claim 22 (twice amended) A method for providing a mix minus signal from a feedback signal from a broadcast transmission and a talent signal said signals having a relative delay which may vary due to said broadcast transmission, including the steps of:

- a) delaying said talent signal by an varying delay amount [continuously] responsive to said relative delay which may vary;
- b) adjusting the level of said talent signal in delayed or undelayed form in a variable gain circuit and providing a cancellation signal in response to the delayed version thereof;
- c) wherein in step a) said varying delay amount and in step b) said level are automatically responsive to at least one of said mix minus signal and said feedback signal and;

46 d) providing said mix minus signal in response to said feedback signal and said cancellation signal wherein said feedback signal suffers no variable delay beyond that as part of said broadcast transmission.

Claim 23 A method as claimed in claim 20, 21 or 22 wherein said varying delay amount of step a) is responsive to said feedback signal and said level of step b) is responsive to said mix minus signal.

Claim 24 (twice amended) [A method for providing a mix minus signal from a talent signal and a feedback signal having a variable amount of delay including the steps of:

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- a) delaying said talent signal by a varying delay amount in response to said variable amount of delay;
 - b) providing a cancellation signal of a known level in response to said delayed talent signal;
 - c) changing said varying delay amount of said delay in step a) from time to time;
 - d) combining said feedback signal and said cancellation signal to provide said mix minus signal;]

A method as claimed in claim 20, 21 or 22 wherein said varying delay amount of step a) is responsive to said mix minus signal and said level of step b) is responsive to said feedback signal.

Claim 25 A method as claimed in claim 20, 21 or 22 wherein said varying delay amount of step a) and said level of step b) is responsive to said feedback signal.

Claim 26 (twice amended) [A method for providing a mix minus signal from a talent signal and a feedback signal having a variable amount of delay including the steps of:

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- a) delaying said talent signal by a varying delay amount in response to said variable amount of delay;
 - b) providing a cancellation signal of a known level in response to said delayed talent signal;
 - c) changing said varying delay amount of said delay in step a) from time to time;
 - d) combining said feedback signal and said cancellation signal to provide said mix minus signal;]

A method as claimed in claim 20, 21 or 22 wherein said varying delay amount of step a) and said level of step b) is responsive to said mix minus signal.

Claim 27 A method as claimed in claim 20, 21 or 22 wherein at least one of said varying delay amount of step a) and said level of step b) is responsive to said talent signal in delayed form.

Claim 28 A method as claimed in claim 20, 21 or 22 wherein at least one of said varying delay amount of step a) and said level of step b) is responsive to a correlation of said feedback signal and said talent signal wherein said talent signal is in delayed form.

Claim 29 (twice amended) [A method for providing a mix minus signal from a talent signal and a feedback signal having a variable amount of delay including the steps of:

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- a) delaying said talent signal by a varying delay amount in response to said variable amount of delay;
 - b) providing a cancellation signal of a known level in response to said delayed talent signal;
 - c) changing said varying delay amount of said delay in step a) from time to time;
 - d) combining said feedback signal and said cancellation signal to provide said mix minus signal;]

A method as claimed in claim 20, 21 or 22 wherein at least one of said varying delay amount of step a) and said level of step b) is responsive to said mix minus signal and said talent signal in undelayed form.

Claim 30 A method as claimed in claim 20, 21 or 22 wherein at least one of said varying delay amount of step a) and said level of step b) is responsive to said feedback signal and said talent signal wherein said talent signal is in undelayed form.

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Claim 31 (amended) A method as claimed in claim 20, 21 or 22 wherein at least one of said varying delay amount of step a) and said level of step b) is responsive to said mix minus signal and said talent signal wherein said talent signal has been gain adjusted in said [gain adjust] step b).

Claim 32 (amended) A method as claimed in claim 20, 21 or 22 wherein at least one of said varying delay amount of step a) and said level of step b) is responsive to a correlation of said feedback signal and said talent signal wherein said talent signal has been gain adjusted in said [gain adjust circuit] step b).

Claim 33 (amended) A method as claimed in claim 20, 21 or 22 wherein at least one of said varying delay amount of step a) and said level of step b) is responsive to a correlation of said mix minus signal and said talent signal wherein said talent signal has been gain adjusted in said [gain adjust circuit] step b).

Claim 34 (amended) A method as claimed in claim 20, 21 or 22 wherein at least one of said varying delay amount of step a) and said level of step b) is responsive to a correlation of said feedback signal and said talent signal wherein said talent signal has been gain adjusted in said [gain adjust circuit] step b).

Claim 35 A method as claimed in claim 20, 21 or 22 wherein at least one of said varying delay amount of step a) and said level of step b) is responsive to a correlation of said feedback signal and said cancellation signal.

Claim 36 A method as claimed in claim 20, 21 or 22 wherein at least one of said varying delay amount of step a) and said level of step b) is responsive to a correlation of said mix minus signal and said cancellation signal.

Claim 37 A method as claimed in claim 20, 21 or 22 wherein said varying delay amount of step a) is automatically adjustable in response to changes in relative delay of said talent signal and the talent signal component of said feedback signal.

Claim 38 (twice amended) [A method for providing a mix minus signal from a talent signal and a feedback signal having a variable amount of delay including the steps of:

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- a) delaying said talent signal by a varying delay amount in response to said variable amount of delay;
 - b) providing a cancellation signal of a known level in response to said delayed talent signal;
 - c) changing said varying delay amount of said delay in step a) from time to time;
 - d) combining said feedback signal and said cancellation signal to provide said mix minus signal;]

A method as claimed in claim 20, 21 or 22 wherein said varying delay amount of step a) is automatically adjusted in response to comparison of said feedback signal and said talent signal in undelayed form, and said level of step b) is automatically adjusted in response to said mix minus signal and said talent signal in delayed form.

Claim 39 A method as claimed in claim 20, 21 or 22 wherein said delaying of step a) include pitch correction in order that the pitch of said talent signal remains constant as said delay is changed.

Claim 40 (amended) A system for providing a mix minus signal from a feedback signal having a relative delay with respect to [and] a talent signal including in combination:

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a cancellation circuit responsive to said talent signal to delay said talent signal in an amount set by a human operator [in a variable delay] and to gain adjust said talent signal in delayed or undelayed form in a variable gain circuit thereby providing a cancellation signal[, with the amount of at least one of said delay or gain responsive to said mix minus signal or said feedback signal or both] and;

a combining circuit responsive to said feedback signal and said cancellation signal to provide said mix minus signal[;

wherein said amount of said delay is responsive to said mix minus signal and the amount of said gain is responsive to said feedback signal].

Claim 41 (amended) A system [for providing a mix minus signal from a feedback signal and a talent signal including in combination:

a cancellation circuit responsive to said talent signal to delay said talent signal in a variable delay and to gain adjust said talent signal in delayed or undelayed form in a variable gain circuit thereby providing a cancellation signal, with the amount of said delay and gain automatically responsive to at least one of said mix minus signal and said feedback signal and;

FIN a combining circuit responsive to said feedback signal and said cancellation signal to provide said mix minus signal;

wherein said amount of said delay is responsive to said mix minus signal and the amount of said gain is responsive to said feedback signal] as in claim 40 wherein said gain adjustment of said talent signal operates in a fashion such that said mix minus signal intentionally includes an audible residual amount of said talent signal.


Claim 42 (amended) A system [for providing a mix minus signal from a feedback signal and a talent signal including in combination:

a cancellation circuit responsive to said talent signal to delay said talent signal in a variable delay and to gain adjust said talent signal in delayed or undelayed form in a variable gain circuit thereby providing a cancellation signal, with the amount of at least one of said delay or gain responsive to said mix minus signal or said feedback signal or both;

a combining circuit responsive to said feedback signal and said cancellation signal to provide said mix minus signal;

wherein said amount of said delay and said amount of said gain is responsive to said mix minus signal] as in claim 40 wherein said delay amount of said talent signal is automatically changed from said amount set by a human operator to the expected amount of said relative delay of said feedback signal with respect to said talent signal when said relative delay changes.

Claim 43 (amended) A system for providing a mix minus signal from a feedback signal delayed by a first amount relative to [and] a talent signal including in combination:

 a cancellation circuit responsive to said talent signal to delay said talent signal [in a variable delay] by an amount set by a human operator to the expected value of said first amount and to gain adjust said talent signal in delayed or undelayed form in a variable gain circuit thereby providing a cancellation signal[, with the amount of said delay and gain automatically responsive to at least one of said mix minus signal and said feedback signal] and;

a combining circuit responsive to said feedback signal and said cancellation signal to provide said mix minus signal[;

wherein said amount of said delay and said amount of said gain is responsive to said mix minus signal].

Claim 44 (amended) A system for providing a mix minus signal from a feedback signal delayed by a first amount relative to [and] a talent signal including in combination:


a cancellation circuit responsive to said talent signal to delay said talent signal [in a variable delay] by an amount set by a human operator in response to the expected value of said first amount and to gain adjust said talent signal in delayed or undelayed form in a variable gain circuit

thereby providing a cancellation signal, with the amount of [at least one of] said [delay or] gain responsive to said mix minus signal or said feedback signal or both and;

a combining circuit responsive to said feedback signal and said cancellation signal to provide said mix minus signal[;

wherein said delay is automatically adjusted in response to comparison of said feedback signal and said talent signal in undelayed form, and said gain is automatically adjusted in response to said mix minus signal and said talent signal in delayed form].

Claim 45 (amended) A system [for providing a mix minus signal from a feedback signal and a talent signal including in combination:

 a cancellation circuit responsive to said talent signal to delay said talent signal in a variable delay and to gain adjust said talent signal in delayed or undelayed form in a variable gain circuit thereby providing a cancellation signal, with the amount of said delay and gain automatically responsive to at least one of said mix minus signal and said feedback signal and;

a combining circuit responsive to said feedback signal and said cancellation signal to provide said mix minus signal;

wherein said delay is automatically adjusted in response to comparison of said feedback signal and said talent signal in undelayed form, and said gain is automatically adjusted in response to said mix minus signal and said talent signal in delayed form] as in claim 43 or 44 wherein said mix minus signal intentionally includes an audible residual amount of said talent signal which amount is responsive to human operator adjustment.

Claim 46 (amended) A method of providing a mix minus signal from a feedback signal which is delayed by a first amount and a talent signal [have a variable relative timing,] including the steps of:

- a) delaying said talent signal by [a varying delay amount] an amount set by a human operator in respons[iv]e to [said varying relative timing] the expected value of said first amount;
- b) adjusting the level of said talent signal in delayed or undelayed form and providing a cancellation signal in response to the delayed form thereof and;
- (c) in said delaying step a) or said adjusting step b) or both, changing the amount of at least one of said varying delay amount or said level in responsive to said mix minus signal or said feedback signal or both;]
- [d] c) providing said mix minus signal in response to said feedback signal and said cancellation signal[;

wherein said varying delay amount of step a) is responsive to said mix minus signal and said level of step b) is responsive to said feedback signal].


Claim 47 (amended) A method [for providing a mix minus signal from a feedback signal and a talent signal said signals having a relative delay which may vary, including the steps of:

- a) delaying said talent signal by an varying delay amount responsive to said relative delay which may vary;
- b) adjusting the level of said talent signal in delayed or undelayed form in a variable gain circuit and providing a cancellation signal in response to the delayed version thereof;
- c) wherein in step a) said varying delay amount and in step b) said level are automatically responsive to at least one of said mix minus signal and said feedback signal and;
- d) providing said mix minus signal in response to said feedback signal and said cancellation

signal;

wherein said varying delay amount of step a) is responsive to said mix minus signal and said level of step b) is responsive to said feedback signal] as in claim 46 wherein step b) or c) or both operate in a fashion such that said mix minus signal intentionally includes a residual audible amount of said talent signal.

Claim 48 (amended) A method [of providing a mix minus signal from a feedback signal and a talent signal which have a variable relative timing, including the steps of:

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- a) delaying said talent signal by a varying delay amount in responsive to said varying relative timing;
 - b) adjusting the level of said talent signal in delayed or undelayed form and providing a cancellation signal in response to the delayed form thereof;
 - c) in said delaying step a) or said adjusting step b) or both, changing the amount of at least one of said varying delay amount or said level in responsive to said mix minus signal or said feedback signal or both;
 - d) providing said mix minus signal in response to said feedback signal and said cancellation signal;

wherein said varying delay amount of step a) and said level of step b) is responsive to said mix minus signal] as in claim 46 wherein step a) includes automatically changing the amount of delay of said talent signal from said amount set by said human operator to said first amount.

Claim 49 (amended) A method for providing a mix minus signal from a feedback signal delayed by a first amount and a talent signal [said signals having a relative delay which may vary,] including the steps of:

- a) delaying said talent signal by an [varying delay] amount set by a human operator in respons[iv]e to the expected value of said first amount [said relative delay which may vary];
- b) adjusting the level of said talent signal in delayed or undelayed form in a variable gain circuit and providing a cancellation signal in response to the delayed version thereof;
- c) [wherein in step a) said] automatically varying said delay amount of step a) from said expected value to said first value [and in step b) said level are automatically responsive to at least one of said mix minus signal and said feedback signal] and;
- d) providing said mix minus signal in response to said feedback signal and said cancellation signal[;

wherein said varying delay amount of step a) and said level of step b) is responsive to said mix minus signal].

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Claim 50 (amended) A method of providing a mix minus signal from a feedback signal delayed by a first amount and a talent signal [which have a variable relative timing,] including the steps of:

- a) delaying said talent signal by a [varying] delay amount set by a human operator in respons[iv]e to the expected value of said first amount [said varying relative timing];
- b) adjusting the level of said talent signal in delayed or undelayed form and providing a cancellation signal in response to the delayed form thereof;
- c) in said delaying step a) or said adjusting step b) or both, automatically changing the amount of at least one of said [varying] delay amount or said level in responsive to at least one of said mix minus signal or said feedback signal [or both] and;
- d) providing said mix minus signal in response to said feedback signal and said cancellation signal[;

F12 wherein at least one of said varying delay amount of step a) and said level of step b) is responsive to said mix minus signal and said talent signal in undelayed form].

Claim 51 A method [for providing a mix minus signal from a feedback signal and a talent signal said signals having a relative delay which may vary, including the steps of:

- a) delaying said talent signal by an varying delay amount responsive to said relative delay which may vary;
- b) adjusting the level of said talent signal in delayed or undelayed form in a variable gain circuit and providing a cancellation signal in response to the delayed version thereof;
- c) wherein in step a) said varying delay amount and in step b) said level are automatically responsive to at least one of said mix minus signal and said feedback signal and;
- d) providing said mix minus signal in response to said feedback signal and said cancellation signal;

wherein at least one of said varying delay amount of step a) and said level of step b) is responsive to said mix minus signal and said talent signal in undelayed form] as in claim 49 or 50 wherein said mix minus signal intentionally includes a residual audible amount of said talent signal which amount is responsive to human operator adjustment.

Claim 52 A method [of providing a mix minus signal from a feedback signal and a talent signal which have a variable relative timing, including the steps of:

- a) delaying said talent signal by a varying delay amount in responsive to said varying relative timing;
- b) adjusting the level of said talent signal in delayed or undelayed form and providing a cancellation signal in response to the delayed form thereof;

c) in said delaying step a) or said adjusting step b) or both, changing the amount of at least one of said varying delay amount or said level in responsive to said mix minus signal or said feedback signal or both;

d) providing said mix minus signal in response to said feedback signal and said cancellation signal;

wherein said varying delay amount of step a) is automatically adjusted in response to comparison of said feedback signal and said talent signal in undelayed form, and said level of step b) is automatically adjusted in response to said mix minus signal and said talent signal in delayed form] as in claim 49 or 50 wherein in step c) includes automatically changing the amount of delay of said talent signal from said amount set by said human operator to said first amount after said delay of step a) is set by said human operator.

Claim 53 A method [for providing a mix minus signal from a feedback signal and a talent signal said signals having a relative delay which may vary, including the steps of:

a) delaying said talent signal by an varying delay amount responsive to said relative delay which may vary;

b) adjusting the level of said talent signal in delayed or undelayed form in a variable gain circuit and providing a cancellation signal in response to the delayed version thereof;

c) wherein in step a) said varying delay amount and in step b) said level are automatically responsive to at least one of said mix minus signal and said feedback signal and;

d) providing said mix minus signal in response to said feedback signal and said cancellation signal;

wherein said varying delay amount of step a) is automatically adjusted in response to comparison of said feedback signal and said talent signal in undelayed form, and said level of step